



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-0672; Project Identifier MCAI-2020-01606-T]**

**RIN 2120-AA64**

### **Airworthiness Directives; De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.) Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to supersede Airworthiness Directive (AD) 2020-04-20, which applies to certain De Havilland Aircraft of Canada Limited Model DHC-8-400 series airplanes. AD 2020-04-20 requires repetitive inspections of certain parts for discrepancies that meet specified criteria, and replacement as necessary; repetitive inspections of certain parts for damage and wear, and rework of parts; and electrical bonding checks of certain couplings. AD 2020-04-20 also requires revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. For certain airplanes, AD 2020-04-20 allows a modification that would terminate the repetitive inspections. Since the FAA issued AD 2020-04-20, the FAA has determined that a more robust lightning ignition protection design is necessary and that additional airplanes are affected by the unsafe condition. This proposed AD would continue to require the actions in AD 2020-04-20, revise the applicability by adding airplanes, and require, for certain airplanes, the previously optional rework and retrofit of certain parts of the fuel system. Doing the rework and retrofit would terminate the retained initial and repetitive inspections in this AD. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd@dehavilland.com](mailto:thd@dehavilland.com); Internet <https://dehavilland.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0672; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Joseph Catanzaro, Aerospace

Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email 9-avs-nyaco-cos@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0672; Project Identifier MCAI-2020-01606-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

**Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked

submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Joseph Catanzaro, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Discussion**

The FAA issued AD 2020-04-20, Amendment 39-19857 (61 FR 17473, March 30, 2020) (AD 2020-04-20), for certain De Havilland Aircraft of Canada Limited Model DHC-8-400 series airplanes. AD 2020-04-20 requires repetitive inspections of certain parts for discrepancies that meet specified criteria, and replacement as necessary; repetitive inspections of certain parts for damage and wear, and rework of parts; and electrical bonding checks of certain couplings. AD 2020-04-20 also requires revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. For certain airplanes, AD 2020-04-20 allows a modification that would terminate the repetitive inspections. AD 2020-04-20 resulted from reports of wear on fuel couplings, bonding springs, and sleeves as well as fuel tube end ferrules and fuel component end ferrules. The FAA issued AD 2020-04-20 to address wear on fuel couplings, bonding springs, and sleeves as well as fuel tube end ferrules and fuel component end ferrules, which could reduce the integrity of the electrical bonding paths through the fuel line and components, and ultimately lead to fuel tank ignition in the event of a lightning strike.

## **Actions Since AD 2020-04-20 was Issued**

Since the FAA issued AD 2020-04-20, the FAA has determined that a more robust lightning ignition protection design is necessary, which will better mitigate the risk of lightning strike induced fuel tank ignition through the use of high resistance isolators,

a new fuel coupling design, and improved structural support. Additional airplanes are also affected by the unsafe condition.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2017-04R3, dated April 1, 2020 (also referred to as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain De Havilland Aircraft of Canada Limited Model DHC-8-400 series airplanes. You may examine the MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0672.

This proposed AD was prompted by reports of wear on fuel couplings, bonding springs, and sleeves as well as fuel tube end ferrules and fuel component end ferrules, and that a more robust lightning ignition protection design is necessary. The FAA is proposing this AD to address wear on fuel couplings, bonding springs, and sleeves as well as fuel tube end ferrules and fuel component end ferrules, which could reduce the integrity of the electrical bonding paths through the fuel line and components, and ultimately lead to fuel tank ignition in the event of a lightning strike. See the MCAI for additional background information.

#### **Related Service Information under 1 CFR Part 51**

This proposed AD would require the following service information, which the Director of the Federal Register approved for incorporation by reference as of May 4, 2020 (61 FR 17473, March 30, 2020).

- Bombardier Service Bulletin 84-28-20, Revision D, dated November 23, 2018.
- Bombardier Service Bulletin 84-28-21, Revision C, dated July 13, 2018.
- Bombardier Service Bulletin 84-28-26, Revision A, dated November 29, 2018.
- Q400 Dash 8 (Bombardier) Temporary Revision ALI-0192, dated April 24, 2018.

- Q400 Dash 8 (Bombardier) Temporary Revision ALI-0193, dated April 24, 2018.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA's Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

### **Proposed Requirements of this NPRM**

This proposed AD would retain all of the requirements of AD 2020-04-20. This proposed AD would also require revising the applicability by adding airplanes, and for certain airplanes, reworking and retrofitting certain parts of the fuel system. Doing the rework and retrofit would terminate the existing initial and repetitive inspections in this proposed AD.

### **Costs of Compliance**

The FAA estimates that this proposed AD affects 54 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

**Estimated costs for required actions\***

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Retained actions from AD 2020-04-20	268 work-hours X \$85 per hour = \$22,780	\$0	\$22,780	\$1,230,120
New proposed actions	Up to 1,747 work-hours X \$85 per hour = Up to \$148,495	\$87,385	Up to \$235,880	Up to \$12,737,520

\*Table does not include estimated costs for revising the existing maintenance or inspection program.

The FAA has determined that revising the existing maintenance or inspection program takes an average of 90 work-hours per operator, although the FAA recognizes that this number may vary from operator to operator. In the past, the FAA has estimated that this action takes 1 work-hour per airplane. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, the FAA estimates the total cost per operator to be \$7,650 (90 work-hours x \$85 per work-hour).

**Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products

identified in this rulemaking action.

### **Regulatory Findings**

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive (AD) 2020-04-20, Amendment 39-19857

(61 FR 17473, March 30, 2020); and

- b. Adding the following new AD:



**De Havilland Aircraft of Canada Limited (Type Certificate previously held by Bombardier, Inc.):** Docket No. FAA-2022-0672; Project Identifier MCAI-2020-01606-T.

**(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD replaces AD 2020-04-20, Amendment 39-19857 (61 FR 17473, March 30, 2020) (AD 2020-04-20).

**(c) Applicability**

This AD applies to De Havilland Aircraft of Canada Limited Model DHC-8-400, -401, and -402 airplanes, certificated in any category, manufacturer serial numbers 4001 and 4003 and subsequent.

**(d) Subject**

Air Transport Association (ATA) of America Code 28, Fuel.

**(e) Reason**

This AD was prompted by reports of wear on fuel couplings, bonding springs, and sleeves as well as fuel tube end ferrules and fuel component end ferrules, and that a more robust lightning ignition protection design is necessary. The FAA is issuing this AD to address such wear, which could reduce the integrity of the electrical bonding paths through the fuel line and components, and ultimately lead to fuel tank ignition in the event of a lightning strike.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Initial Inspection Compliance Times, with New Terminating Action**

This paragraph restates the requirements of paragraph (g) of AD 2020-04-20, with new terminating action. For airplanes having serial numbers 4001 and 4003 through 4575 inclusive that, as of May 4, 2020 (the effective date of AD 2020-04-20), have not done the actions specified in Bombardier Service Bulletin 84-28-21: At the applicable times specified in paragraph (g)(1) or (2) of this AD, do the actions specified in paragraphs (h)(1) and (2) of this AD. Accomplishing the terminating action required by paragraph (o) of this AD terminates the initial inspection required by this paragraph.

(1) For all airplanes except those identified in paragraph (g)(2) of this AD: Within 6,000 flight hours or 36 months, whichever occurs first after May 4, 2020 (the effective date of AD 2020-04-20).

(2) For airplanes with an original airworthiness certificate or original export certificate of airworthiness issued on or after May 4, 2020 (the effective date of AD 2020-04-20): Within 6,000 flight hours or 36 months, whichever occurs first after the date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness.

**(h) Retained Repetitive Inspections and Corrective Actions, with New Terminating Action**

This paragraph restates the requirements of paragraph (h) of AD 2020-04-20, with new terminating action. For airplanes having serial numbers 4001 and 4003 through 4575 inclusive that, as of May 4, 2020 (the effective date of AD 2020-04-20), have not done the actions specified in Bombardier Service Bulletin 84-28-21: At the applicable times specified in paragraph (g)(1) or (2) of this AD, do the actions specified in paragraphs (h)(1) and (2) of this AD. Repeat the actions thereafter at intervals not to exceed 6,000 flight hours or 36 months, whichever occurs first. Accomplishing the terminating action required by paragraph (o) of this AD terminates the repetitive inspections required by this paragraph.

(1) Do a detailed inspection of the clamshell coupling bonding wires, fuel couplings, and associated sleeves for discrepancies that meet specified criteria, as identified in, and in accordance with, paragraph 3.B., “Procedure,” of the Accomplishment Instructions of Bombardier Service Bulletin 84-28-20, Revision D, dated November 23, 2018. If any conditions are found meeting the criteria specified in Bombardier Service Bulletin 84-28-20, Revision D, dated November 23, 2018, before further flight, replace affected parts with new couplings and sleeves of the same part number, in accordance with paragraph 3.B., “Procedure,” of the Accomplishment Instructions of Bombardier Bulletin 84-28-20, Revision D, dated November 23, 2018.

(2) Do a detailed inspection of the fuel tube end ferrules, fuel component end ferrules, and ferrule O-ring flanges for damage and wear, and rework (repair, replace, or blend, as applicable) the parts, in accordance with paragraph 3.B., “Procedure,” of the Accomplishment Instructions of Bombardier Service Bulletin 84-28-20, Revision D, dated November 23, 2018.

**(i) Retained Electrical Bonding Checks/Detailed Inspection, with No Changes**

This paragraph restates the requirements of paragraph (j) of AD 2020-04-20, with no changes. For airplanes having serial numbers 4001, 4003 through 4489 inclusive, and 4491 through 4575 inclusive that, as of May 4, 2020 (the effective date of AD 2020-04-20), have done the actions specified in Bombardier Service Bulletin 84-28-21, Revision A, dated September 29, 2017; and airplanes having serial numbers 4576 through 4581 inclusive: Within 6,000 flight hours or 36 months after May 4, 2020, whichever occurs first, do the actions specified in paragraph (i)(1) or (2) of this AD.

(1) Accomplish electrical bonding checks of all threaded couplings on the inboard vent lines in the left and right wings, in accordance with paragraph 3.B., “Procedure,” of the Accomplishment Instructions of Bombardier Service Bulletin 84-28-26, Revision A, dated November 29, 2018.

(2) Do a detailed inspection of the fuel tube end ferrules, fuel component end ferrules, and ferrule O-ring flanges for damage and wear, and rework (repair, replace, or blend, as applicable) the parts; and a retrofit (structural rework) of the fuel couplings, isolators, and structural provisions; in accordance with paragraph 3.B., "Procedure," of the Accomplishment Instructions of Bombardier Service Bulletin 84-28-21, Revision C, dated July 13, 2018.

**(j) Retained Revision of the Existing Maintenance or Inspection Program, with No Changes**

This paragraph restates the requirements of paragraph (k) of AD 2020-04-20, with no changes. Within 30 days after May 4, 2020 (the effective date of AD 2020-04-20), revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in Q400 Dash 8 (Bombardier) Temporary Revision ALI-0192, dated April 24, 2018; and Q400 Dash 8 (Bombardier) Temporary Revision ALI-0193, dated April 24, 2018. Except as specified in paragraph (k) of this AD, the initial compliance time for doing the tasks in Q400 Dash 8 (Bombardier) Temporary Revision ALI-0192, dated April 24, 2018, is at the time specified in Q400 Dash 8 (Bombardier) Temporary Revision ALI-0192, dated April 24, 2018, or within 30 days after May 4, 2020, whichever occurs later.

**(k) Retained Initial Compliance Time for Task 284000-419, with No Changes**

This paragraph restates the requirements of paragraph (l) of AD 2020-04-20, with no changes. The initial compliance time for task 284000-419 is at the time specified in paragraph (k)(1) or (2) of this AD, as applicable, or within 30 days after May 4, 2020 (the effective date of AD 2020-04-20), whichever occurs later.

(1) For airplanes having serial numbers 4001 and 4003 through 4575 inclusive: Within 18,000 flight hours or 108 months, whichever occurs first, after the earliest date of embodiment of Bombardier Service Bulletin 84-28-21 on the airplane.

(2) For airplanes having serial numbers 4576 and subsequent: Within 18,000 flight hours or 108 months, whichever occurs first, from the date of issuance of the original airworthiness certificate or original export certificate of airworthiness.

**(l) Retained No Alternative Actions, Intervals, or Critical Design Configuration Control Limitations (CDCCLs), with No Changes**

This paragraph restates the requirements of paragraph (m) of AD 2020-04-20, with no changes. After the existing maintenance or inspection program has been revised as required by paragraph (j) of this AD, no alternative actions (e.g., inspections), intervals, or CDCCLs may be used unless the actions, intervals, and CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (p)(1) of this AD.

**(m) Retained No Reporting Provisions, with No Changes**

This paragraph restates the provisions of paragraph (n) of AD 2020-04-20, with no changes. Although Bombardier Service Bulletin 84-28-20, Revision D, dated November 23, 2018, specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(n) Retained Credit for Previous Actions, with No Changes**

(1) This paragraph restates the requirements of paragraph (o) of AD 2020-04-20, with no changes. This paragraph provides credit for the actions required by paragraphs (h)(1) and (2) of this AD, if those actions were performed before May 4, 2020 (the effective date of AD 2020-04-20), using the service information specified in paragraph (n)(1)(i) through (iii) of this AD.

(i) Bombardier Service Bulletin 84-28-20, Revision A, dated December 14, 2016.

(ii) Bombardier Service Bulletin 84-28-20, Revision B, dated February 13, 2017.

(iii) Bombardier Service Bulletin 84-28-20, Revision C, dated April 28, 2017.

(2) For the airplane having serial number 4164, this paragraph provides credit for the initial inspections required by paragraphs (h)(1) and (2) of this AD, if those actions

were performed before May 4, 2020 (the effective date of AD 2020-04-20), using Bombardier Service Bulletin 84-28-20, dated September 30, 2016.

(3) This paragraph provides credit for the actions specified in paragraph (o) of this AD if those actions were performed before May 4, 2020 (the effective date of AD 2020-04-20), using the service information specified in paragraph (n)(3)(i) through (v) of this AD.

(i) Bombardier Service Bulletin 84-28-21, dated August 31, 2017.

(ii) Bombardier Service Bulletin 84-28-21, Revision A, dated September 29, 2017, in combination with incorporating the information specified in Bombardier Modification Summary Package (ModSum) IS4Q2800032, Revision A, dated February 1, 2018.

(iii) Bombardier Service Bulletin 84-28-21, Revision A, dated September 29, 2017, in combination with incorporating any of the applicable airworthiness limitation change request (ACR) specified in figure 1 to paragraph (n)(6)(ii) of this AD.

(iv) Bombardier Service Bulletin 84-28-21, Revision B, dated June 8, 2018.

(4) This paragraph provides credit for the actions required by paragraph (i)(1) of this AD if those actions were performed before May 4, 2020 (the effective date of AD 2020-04-20), using Bombardier Service Bulletin 84-28-26, dated August 14, 2018.

(5) This paragraph provides credit for the actions required by paragraph (i)(2) of this AD if those actions were performed before May 4, 2020 (the effective date of AD 2020-04-20), using Bombardier Service Bulletin 84-28-21, Revision B, dated June 8, 2018.

(6) For airplanes having serial numbers 4001, 4003 through 4489 inclusive, and 4491 through 4575 inclusive, and that are post Bombardier Service Bulletin 84-28-21, Revision A, dated September 29, 2017: This paragraph provides credit for the actions required by paragraph (i) of this AD if those actions were performed before May 4, 2020

(the effective date of AD 2020-04-20), using the service information specified in paragraph (n)(6)(i) or (ii) of this AD.

(i) Bombardier Modification Summary Package (ModSum) IS4Q2800032, dated February 1, 2018.

(ii) Any ACR specified in figure 1 to paragraph (n)(6)(ii) of this AD.

**Figure 1 to paragraph (n)(6)(ii) – ACRs**

<b>ACR Number</b>	<b>Dated</b>
400-072	January 24, 2018
400-073	January 23, 2018
400-074	January 24, 2018
400-077	February 27, 2018
400-078	March 21, 2018
400-079	April 18, 2018
400-080	April 30, 2018
400-081	May 4, 2018
400-082	May 4, 2018
400-083	June 4, 2018
400-084	May 18, 2018

**(o) Rework and Retrofit**

For airplanes having serial numbers 4001, 4003 through 4489 inclusive, and 4491 through 4575 inclusive, that have accomplished the actions specified in Bombardier Service Bulletin 84-28-21, Revision A, dated September 29, 2017, but have not incorporated the information in Bombardier Modification Summary Package (ModSum) IS4Q2800032, Revision A, dated February 1, 2018, or have not incorporated any of the applicable ACR specified in figure 1 to paragraph (n)(6)(ii) of this AD: At the applicable time specified in paragraph (o)(1) or (2) of this AD, rework (repair, replace, or blend, as applicable) the parts (fuel tube end ferrules, fuel component end ferrules, and ferrule O-ring flanges); and do a retrofit (structural rework) of the fuel couplings, isolators, and structural provisions; in accordance with Part B of paragraph 3.B., “Procedure,” of the

Accomplishment Instructions of Bombardier Service Bulletin 84-28-21, Revision C, dated July 13, 2018. Accomplishing these actions terminates the initial and repetitive inspections required by paragraphs (g) and (h) of this AD.

(1) For airplanes with greater than 20,000 total flight hours as of the effective date of this AD: Do the actions within 6,000 flight hours or 36 months after the effective date of this AD, whichever occurs first.

(2) For airplanes with less than or equal to 20,000 total flight hours as of the effective date of this AD: Do the actions within 8,000 flight hours or 48 months after the effective date of this AD, whichever occurs first.

**(p) Other FAA AD Provisions**

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); De Havilland Aircraft of Canada Limited's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(q) Related Information**



(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2017-04R3, issued April 1, 2020 for related information. This MCAI may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0672.

(2) For more information about this AD, contact Joseph Catanzaro, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

(3) For service information identified in this AD, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd@dehavilland.com](mailto:thd@dehavilland.com); Internet <https://dehavilland.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on June 2, 2022.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

[FR Doc. 2022-12265 Filed: 6/8/2022 8:45 am; Publication Date: 6/9/2022]